

S/179/60/000/006/034/036
E081/E135

AUTHORS: Orlov, A.V., and Pinegin, S.V., (Moscow)

TITLE: Experimental Investigation of Micro-Displacements in
the Contact Region of Elastic Bodies and the Strength
of the Surface Layer

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh
nauk, Mekhanika i mashinostroyeniye, 1960, No. 6,
pp. 172-175

TEXT: The paper is a continuation of previous work (Ref.2).
The nature of the primary fatigue fracture of components in
contact under reversed static or pulsating load, and also the work
hardening with rollers of components under load is determined by
the stresses and strains in the extreme surface layer of the
component. The paper gives some results of experimental
investigations of displacements and strains in the contact region
at the extreme surface layer, using tensometry under static load,
and with slow rolling under load to avoid the difficulty of
high stress and strain gradients, and to enlarge the area of the
contact plane, the specimens were of hard steel with surfaces of
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Experimental Investigation of Micro-Displacements in the Contact Region of Elastic Bodies and the Strength of the Surface Layer

small curvature, compressed by high loads. Thus on compressing a sphere of diameter 20.5 cm on a plane with a load of 15 000 kg the diameter of the contact plane was about 9.4 mm under the maximum calculated stress of 34 000 kg/cm² at the centre of the plane. Three types of tensometers were used: a ring type, a multi-winding type and a tensile type. The basic object of the experiments was the measurement of radial displacement on compression and, in addition, the relative tangential extension was also measured. Cylindrical coordinates r , t , z are taken; u_r is the radial displacement; ϵ_r is the relative radial extension; σ_r is the normal radial stress; a is the radius of contact; ϵ_t , ϵ_z are residual strain components; σ_t , σ_z are residual stress components; P is the compressive force (kg); μ is Poisson's ratio; E is Young's modulus; r is the radius of the sphere; l is the gauge length. The approximate equation:

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Region of Elastic Bodies and the Strength of the Surface Layer

$$u_r = \int_r^{\infty} \frac{du}{dr} dr - \int_{(r+1)}^{\infty} \frac{du}{dr} dr \quad (1)$$

is derived for u_r with σ_r and ϵ_r given by:

$$\sigma_r = \frac{3P}{2\pi a^2} \left\{ \frac{1-2\mu}{3} \left[\frac{a^2}{r^2} \left(1 - \left(1 - \frac{r^2}{a^2} \right)^{3/2} \right) - \left(1 - \frac{r^2}{a^2} \right)^{1/2} \right] \right\} \quad (2)$$

and

$$\epsilon_r = \frac{3P(1+\mu)(1-2\mu)}{2\pi E a^2} \left\{ \frac{a^2}{3r^2} \left[1 - \left(1 - \frac{r^2}{a^2} \right)^{3/2} \right] - \left(1 - \frac{r^2}{a^2} \right)^{1/2} \right\} \quad (3)$$

Fig.1 shows u_r , σ_r and ϵ_r calculated from Eqs.(1), (2) and (3) for $R = 10.15$ cm, $P = 15$ 000 kg, $E = 2.15 \times 10^6$ kg/cm².

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EO01/0135

Experimental Investigation of Micro-Displacements in the Contact Region of Elastic Bodies and the Strength of the Surface Layer

The experiments showed: 1) that the actual size of the contact area exceeds the calculated size by about 3%, possibly as a result of plastic deformation; 2) a large difference exists between the magnitude of the displacements calculated for an infinite half-space and those measured on a plane specimen 110 x 110 x 30 mm compressed by a sphere. In Fig.2 the calculated curves u_{r1} , u_{r1}^0 are compared with experiment (curves u_{r2} , u_{r2}^0) for the internal contact zone and for the external area up to a radius of 30 mm on compressing a sphere 20.3 cm in diameter with a plane force of 15 000 kg. The difference between the calculated and experimental curves is attributed to the difference between the actual and calculated areas of contact and to the fact that the calculations refer to an infinite half-space whereas the experiments were made on specimens of finite size; 3) the displacements on the spherical surface are appreciably less than on the plane surface. Fig.3 shows the relative extension along a meridian on the surface of the sphere $R = 10.15$ cm compressed or rolled on

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Experimental Investigation of Micro-Displacements in the Contact Region of Elastic Bodies and the Strength of the Surface Layer

the plane under load $P = 15\,000\text{ kg}$ with $E = 2.15 \times 10^6\text{ kg/cm}^2$;

4) there is little difference between the micro-displacements measured when rolling the sphere backwards or forwards, or when under static conditions. Fig.4 shows the graphs of radial displacement on the plane surface. Curves 3 and 4 are for conditions of rolling towards and away from the end of the gauge; curves 1 and 2 are for absence of work hardening with roll. Curves of relative radial extension for slow rolling ($v = 5\text{ mm/sec}$) are shown in Fig.5, where curve 1 is theoretical for the plane, curve 2 is experimental for the plane and curve 3 is experimental for the sphere. The occurrence of shear and tensile stresses in the surface and the role of micro-cracks in the breakdown process are briefly discussed. ✓

There are 5 figures and 2 Soviet references.

Card 5/8 -

GENKIN, Mikhail Dmitriyevich; GRINKEVICH, Vladimir Kazimirovich; PINEGIN, S.V., doktor tekhn. nauk, prof., otv. red.; KLEBANOV, M.Ya., red. izd-va; RYLINA, Yu.V., tekhn. red.

[Dynamic loads on helical gears] Dinamicheskie nagruzki v peredachakh s kosozubymi kolesami. Moskva, Izd-vo Akad. nauk SSSR, 1961. 116 p. (MIRA 14:8)

(Gearing, Spiral)

PINEGIN, Sergy Vasil'yevich; BERKOVICH, D.M., red. izd-va; VOLKOVA,
V.V.; tekhn. red.

[Antifriction bearings in machines] Opory kacheniia v mashinakh.
Moskva, Izd-vo Akad.nauk SSSR, 1961. 148 p. (MIRA 15:1)
(Bearings (Machinery))

GROBOV, Valerian Aleksandrovich; ARTOBOLYEVSKIY, I.I., akademik, otv. red.;
 DIKUSHIN, V.I., akademik; red.; SERENSEN, S.V., akademik, red.;
 PINESIN, G.V., doktor tekhn. nauk, prof., red.; LEVITSKIY, A.I.,
 doktor tekhn. nauk, prof., red.; DIMENTBERG, F.M., doktor tekhn.
 nauk, red.; KOBRINSKIY, A.Ye., doktor tekhn. nauk, red.;
 RAYEVSKIY, H.P., kand. tekhn. nauk, red.; BESSONOV, A.P., kand. tekhn.
 nauk, red.; ORPIK, S.L., red. izd-va; LAUT, V.G., tekhn. red.

[Asymptotic methods for calculating bending vibrations of turbo-
 machine rotors] Asimptomicheskie metody rascheta izgibnykh ko-
 lebanii valov turbomashin. Moskva, Izd-vo Akad. nauk SSSR,
 1961. 165 p.
 (MIRA 14:5)

1. Akademiya nauk USSR (for Serensen)
 (Impellers--Vibration)

PINEGIN, S.V. (Moskva); ORLOV, A.V. (Moskva)

Resistance to motion in some cases of free rolling. Izv. AN SSSR. Otd.
tekh. nauk. Mekh. i mashinostr. no. 3:91-97 My-Je '61. (MIRA 14:6)
(Motion) (Friction)

9,6180

AUTHORS:

~~Pinckney, S. F.~~
~~Tennor, C. F.~~

TITLE:

A small, white, fluffy, downy bird, possibly a chick, is seen in the foreground, looking towards the camera. The background is a dark, textured surface, possibly a wall or a large rock.

PERIODICAL: Yes + 18 months

TEXT: Measuring elast. properties, displacements, etc. at points in the material when it is under stress. The elasticity. An example is investigation of stresses in the surfaces of rails or in the tires of aircraft wheels, in the teeth in gears and a similar investigation of stresses in bridges etc. As the area of application of the method is broad, gradients of stresses and deformations are measured in many great obstacles in the measurements. The problem of the use of similar or natural experiments in the measurements of stresses remains unsolved. This enhances the interest of the method of interest of investigating the deformation of the material.

Card 1/4

A strain gauge method: . . .

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A strain gauge method

zone. The displacements of the investigated point, i.e. the weld spot of the front end of the transducer in relation to its rear end, increase or decrease its tension, and thus its electric resistance. The restrictiveness of the zone of local surface deformations and the relatively large length of the transducer allow the assumption of the rear end of the transducer as a fixed point which is used as a datum for computing the displacements of the front end of the transducer. In special cases the displacement of the rear end can be measured with an additional transducer or by calculation. To record the changes of the electrical resistance, the transducer is connected into a bridge circuit. The earthed end of the transducer must be connected with the similar (earthed) end of the supply coil. The unbalance current is amplified and indicated by the oscillograph with a simultaneous display of deformation and time marking. The calibration of the scope is made with the use of a standard reference beam whose central part is subject to bending only. The scatter of measurements does not exceed 4%. In the above it is assumed that the groove is sufficiently small to affect the distribution of displacements and stresses.

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0.4 x 0.05

A strain gauge method ...

This was verified by measuring the deformations on the flat surface of components in the test of the ball with a 1/4" diameter ball. Both surfaces were measured with high precision and hardened to HRC 62-63. Two tension transducers were placed at the flat components: one on the surface and one in the center. The components were compressed and the distance between the ball center and the frontend of transducer was marked. The same was repeated with the second transducer. For loads of 10 and 20 T the diameters of contacts were 0.3 and 0.5 mm. There is only a small difference between the indications of the two transducers which confirms the previous assumption. Examples are given which demonstrate the possibilities of the method for detailed experimental investigations on this problem. The results are given in 3 views: close reference.

Card 14

SPERANSKIY, Nikolay Vasil'yevich; ARTOBOLVSKIY, I.I., akademik, otv.
red.; DIKUSHIN, V.I., akademik, red.; SERENSEN, S.V., akademik,
red.; PINEGIN, S.V., prof., doktor tekhn.nauk, red.; LEVITSKIY,
A.I., prof., doktor tekhn.nauk, red.; DIMENTBERG, F.M., doktor
tekhn.nauk, red.; KOBRINSKIY, A.Ye., doktor tekhn.nauk, red.;
RAYEVSKIY, N.P., kand.tekhn.nauk, red.; BESSONOV, A.P., kand.
tekhn.nauk, red.; SOKOLOVA-CHESTNOVA, V.A., red.izd-va; SUSHKOVA,
L.A., tekhn.red.

[Designing Geneva wheels] Proektirovaniye mel'tilaskikh mekhanizmov.
Moskva, Izd-vo Akad.nauk SSSR, 1960. 92 p. (MIRA 13:8)

1. AN USSR (for Serensen).
(Mechanical movements)

PINEGIN, S.V., doktor tekhn.nauk, prof.

Scientific achievements and the objectives of the Soviet machinery
industry. Vest.mash. 41 no.8:3-6 Ag '61. (MIRA 14:8)
(Machinery industry)

L 42317-66 ENT(d)/ENT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HN/EM
 ACC NR: AP6016305 SOURCE CODE: UR/0380/66/000/001/0076/0083

AUTHOR: Pinagin, S. V. (Moscow); Orlov, A. V. (Moscow); Gudchenko, V. M. (Moscow)

ORG: none

TITLE: Failure of material under the action of a pulsating contact load

SOURCE: Mashinovedeniye, no. 1, 1966, 76-83

TOPIC TAGS: material failure, metallographic examination, hardness

ABSTRACT: The aim of the work was a description of changes in a material in the contact zone which occur during long term working of the pieces under given conditions, and establishment of the form and location of the foci of the failure of the material. The test samples were short cylinders with a diameter of 50 mm, with flat convex spherical or grooved end surfaces. By combining the end surfaces of the samples and compressing them in an axial direction, we obtained contact surfaces of a circular or elliptical form depending on the form of the surfaces joined. The curvature of the surface was so chosen that the eccentricity of the ellipse $e < 0.89$. The samples were made of Type SbKh-15 carbon chromium steel. After heat treatment the samples had a

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ACC NR: AP6016305

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surface hardness HRC = 60-62. The ends of the samples were polished to a purity $R_a = 0.06-0.08$ microns. Each pair of samples was placed in special chambers (diagram shown) equipped with hydraulic pulsators, or in a resonance type electric vibrator, and were subjected to an alternating compression load corresponding to Hertzian stresses at the center of the area of from 250 to 450 kg/mm². The frequency of the loads in the pulsator was 8 cycles, and in the electric vibrator 80 cycles. The temperature of the samples varied from 30 to 45°. The duration of the tests varied from 3 to 22 million load cycles, and was limited by the appearance of visible damage to the surface. After the tests, the samples were subjected to metallographic investigation. Determinations were made of the residual deformations and of the depth of the surface damage. Experimental results are given in graphic form, and several microphotos of the surfaces are given. Orig. art. has: 5 figures.

SUB CODE: 11, 20/ SUBM DATE: 27Jul65/ ORIG REF: 007/ OTH REF: 005

Card 2/2

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AM5017150

EWI(d)/EWI(m)/EWP(w)/EWP(c)/EWP(v)/EWP(h)/EWP(b)/EWP(l)/EWA(c)/ETC(m)
I/EWP(t)

BOOK EXPLOITATION

JD/WW/HM/EM

UR/

539.4.014:621.0

Pinegin, S. V. (Doctor of Technical Sciences; Professor)

Terminal stability in machines (Kontaktnaya prochnost' v mashinakh). Moscow, Izd-vo "Mashinostroyeniye," 1965. 14 190 p. illus., biblio. Errata slip inserted.
4700 copies printed.

TOPIC TAGS: machine, contact stress, contact strength, contact deformation, vibration resistance, contact surface, material destruction

PURPOSE AND COVERAGE: The book is intended for scientists, engineers, designers and research specialists dealing with problems of heavily loaded, machine contact surfaces. The book reviews the problem of crushing of machine-part working surfaces under heavy contact loads and describes methods for determining contact strength.

TABLE OF CONTENTS [Abridged]:

Introduction -- 3

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- Ch. I. Stress and Deformation at the Contact Surface of Elastic Bodies -- 5
- Ch. II. Experimental Investigation of Vibration Resistance of Contact Surfaces -- 63
- Ch. III. Initial Condition of Working Surfaces and Material Near this Surface,
After Machining ⁷⁶ 89
- Ch. IV. Crushing of Material Under Contact Load and Criteria for Calculating
Contact Strength
- References -- 186

SUB CODE: MM

NO REF SOV: 091

SUBMITTED: 19Jan65

OTHER: 035

CC
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L 3298-66 EWT(m)/EWP(w)/EPF(c)/EWP(1)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/ETC(m) DJ/
 FJW/JD/W
 ACCESSION NR: AP5012076

UR/0380/65/000/001/0119/0126
 659.14.018.001.5:533.5

AUTHOR: Pinegin, S. V. (Moscow); Gudchenko, V. M. (Moscow)

TITLE: Experimental study of the effect which vacuum has on contact destruction of steel

SOURCE: Mashinovedeniye, no. 1, 1965, 119-126

TOPIC TAGS: wear resistance, steel, bearing steel

ABSTRACT: Specially heat treated specimens of 9Kh18Sh steel and ShKh15 steel were tested for contact wearing at a maximum contact stress of 450 kg/mm^2 and a loading frequency of 5200 cycles per minute. The test equipment is described. Tests in vacuum without lubrication were compared with tests in air using VM-1 oil. The optimum performance of the samples was observed in a vacuum of the order of $1 \cdot 10^{-1} - 1 \cdot 10^{-3} \text{ mm Hg}$. At higher vacuums and in air poorer results were obtained. 9Kh18Sh specimens show less wear than ShKh15 steel, in spite of the fact that 9Kh18Sh steel is softer. It was found that the best lubricant for roller bearings operating in a vacuum is a 50% mixture of VM-1 vacuum oil and molybdenum disulfide. It is

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ACCESSION NR: AP5012076

recommended that thin plastic layers be applied to friction surfaces for more uniform pressure distribution to reduce local surface temperatures, wear and formation of cracks. The high thermal stability and heat conductivity of these plastic coatings make friction conditions less rigid by increasing heat transfer from the friction surface. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 18Nov64

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 010

OTHER: 001

Card 212

AP

PINEGIN, S. V.; ORLOV, A. A.; BUKHCHENKO, V. (Moscow)

"Failures of material under pulsating contact loads."

report submitted for analysis, Dimensioning and Strength Calculation, 1971,
2-17 Oct 1971.

LINEGIN, S.V., doktor tekhn. nauk, prof.; ... V. B. KIV, ...,
kand. tekhn. nauk, rezentent; ... V. S. ...,
tekhn. nauk, prof., red.

(Contact strength in machinery. Kontaktnaya prochnost' v
maslinakh. Moskva, Mashinostroenie, 1961. 190 p.
(M.A. 181.)

11.11.11, 11.11.11, 11.11.11, 11.11.11, 11.11.11, 11.11.11.

{Contact strength of materials used in the...
industry. Kontaktiraniye pri chislochnom mashinno-traitse
materialov. No 100, 100-100, 100-100, 100-100.

(MIA 11.11.11)

11.11.11, 11.11.11, 11.11.11, 11.11.11, 11.11.11, 11.11.11.

PINEGIN, Sergey V.

"The information provided in this report is based on a
report submitted for Int. Information Conf. on the
by Mr. Int. Machine, Moscow, M. W."

PINEGIN, V.

Reconsider the norms of the deviation of parallel determi-
nations of moisture. Muk.-elev. prom. 29 no.7:27 11.03.
(MIRA 1971)

1. Zamestiteľ direktora Kosobrodského chleboprírodného
punkta.

Pinegin, V. A.

Distr: 4E2c(j)

1174. Influence of technological factors upon bond strength between elements of tyre covers. Y.

A. Pinegin, S. A. Vasil'eva, and L. M. Kuznetsov.

Prochnost' Svyazy . . . , 1954, p. 87-87. (Vses.

Khim. Obshch. im. D.I. Mendeleeva, Dec., 1954).

The bond strength in tyre covers of 100% synthetic

rubber may be increased by (i) maintaining the

freshness of the piled-up parts by shortening the

period of storage, buffing, and application of the

bonding agent to the previously heated surfaces;

(ii) increasing the pressure and its duration during

plying-up; (iii) increasing the pressure during

vulcanization; (iv) raising the temperature of the

piled-up parts to 60 to 70°C. ----- 25000A2147

6
2 May
1

gag

Pine gin, V. A.

250. Improved pine gin, made in Sweden
motor 1750 cc, V. A. Pine gin, V. A. Talm.
Byull. Mosk. Shinnogo Zavoda, 1955, No. 2, 7-14;
Kauch. i Rezina, 1957, 18, No. 4, 40. Cf. Russ.
Abz., 1957, abs. 4384. 66A2113

PINEGIN, V.A.

15
2
4E2C
2 May

Ways of improving the tyre building process. V.A. PINEGIN, *Kauch. i. Kautsch.* 1987, 18, No. 2, 12-22. A detailed review is given, dealing with inadequacies in present systems, means for overcoming these, the influence of various manufacturing factors upon the bond strength of piled-up surfaces, the improvement of the half-mandrel process of tyre building, modifications in technique, and modernization of equipment. There are 12 references.

dm
mt

Modern Technological Improvements in Tire Production

307, 174, 175, 176

ingredients of rubber mixtures the preparation of these mixtures and the discharge of the finished mixture is carried out on automatic conveyor lines (Figure 3). The finished mixture is directly transported to the calenders and inspectors. For this purpose a press for the fast vulcanization of rubber sheets at 170 - 210°C during 1 - 2 min has been developed by KILB (Figure 5). The heating of the cord with rubber is also carried out automatically. The unroll line of the cord cleaning and impregnation, drying, and cooling etc is described in Figure 6. The machine for the automatic assembly of the Figure 7. The machine for the automatic assembly of the Figure 8. The machine for the automatic assembly of the Figure 9. The machine for the automatic assembly of the Figure 10. Several foreign machines are mentioned here. In the USSR a machine for the production of rubber bands has been developed. A machine for the assembly of motorcar tires of the firm "National Rubber Machinery" is shown in Figure 11. A similar device for truck tires is shown in Figure 12. In the USSR the production of tires for the motorcar and truck is carried out in the following manner:

and 176

Modern Technological Processes of Tire Making

developed by NIRS. There are a number of different types of tire casings has been devised by NIRS. The foreign machines for automatic vulcanization "Bag" type and "Autoform" type. Research work is going on in the field of radiation vulcanization of tire casings but this work is still in the preliminary and semi-industrial stage. NIRS developed a method of preliminary heating of casings by high frequency currents which facilitates molding and vulcanization. There are three types of machines and 10-15 different models which are Soviet and English.

Card 3/4

PINEGIN, VASILII NIKOLAEVICH.

Smoky i smokovi ustavy. Kharkiv, Derzh. vyd-vo Ukrainy, 1930. 448 p. illus.,
diags.

Bibliography: p. (4.5)-4.6.

Pumps and pumping installations.

DL: TJ900.F55

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953

KLYUZHINA, M.L.; PINEGIN, Ye.F.

Asha series of the Central Urals. Dokl. AN SSSR 139 no.6:1432-1434 Ag '61.
(MIRA 14:8)

1. Gorno-geologicheskii institut Ural'skogo filiala
AN SSSR. Predstavleno akademikom D.V. Nalivkinym.
(Chusovaya Valley--Geology, Stratigraphic)

PINEGINA, Lidiya Alekseyevna; NUSUPBEKOV, A.N., otv. red.;
LEVIN, M.L., red.; ALFEROVA, P.F., tekhn. red.

[Copper giant; an historical sketch] Mednyi gigant;
istoricheskii ocherk. Alma-Ata, Izd-vo AN KazSSR, 1963.
147 p. (MIRA 17:2)

LEKINA, I. I.

Lekina, I. I., Ponomareva, V. K., Il'inskiy, I. M. - "New organotin organometallic reactions. XII. Reaction of tin(IV) halides with arylmagnesium halides." (1963)

62: Journal of General Chemistry, (Journal of General Chemistry), 27, 1963, 1113

PINEGINA, L. Yu.

C. A. 47, 4861c.
C. A. 47, 4861c.
C. A. 47, 4861c.
Organic Chemistry

(4) 12

Steric hindrance in organomagnesium reactions. XII.
Reaction of dimethyl oxalate with di-*o*-substituted arylmag-
nesium halides. I. I. Lapkin, N. K. Ponomareva, and
L. Yu. Pinegina (Gorkii-Molotov State Univ.) *J. Gen.
Chem. U.S.S.R.* 22, 1407-10 (1952) (Engl. translation).
—See C.A. 47, 4861c. XIII. Preparation of ketones by the
reaction of aryl halides with organomagnesium compounds.
I. I. Lapkin, N. I. Latosh, and B. S. Dehry *Ibid.* 1411-14.
—See C.A. 47, 4861c. H. L. H.

13

"APPROVED FOR RELEASE: 06/15/2000

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APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001340910020-1"

KOZLOV, N.S.; PINEGINA, L.Yu.

Catalytic condensation of acetylene with aromatic amines. Part 25.
Synthesis of 2-(oxyphenyl) derivatives of quinoline. Zhur.ob.
khim. 26 no.1:247-250 Ja '56. (MLBA 9:5)

1. Molotovskiy gosudarstvennyy pedagogicheskiy institut.
(Quinoline)

PANEQINVA. L. No.

✓ Catalytic condensation of acetones with aromatic aldehydes.
XXVIII. Synthesis of hydroxy and dimethylamino derivatives of 2-phenylquinoline. N. S. Kozlov and L. Yu. Pincagina (State Univ., Molotov). *Zhur. Obshchei Khim.* 27, 1906-8 (1957); *S. C. A.* 50, 13923e; 52, 3814k. — Following the technique described previously (above ref.) cocondensations were run with primary aromatic amines and C_6H_5 with aromatic HO aldehydes or p -Me $_2$ NC $_6$ H $_4$ CHO. The following products are reported: 3,2-Me(HO)C $_6$ H $_4$ CHO and p -toluidine in EtOH with HgCl $_2$ and 15 hrs. satn. of the mixt. with C_6H_5 gave 2-(3-hydroxy-3-methylphenyl)-6-methylquinoline, m. 169-70° (picrate, m. 162-3°), whose chloroplatinate was analyzed; m -toluidine gave similarly 43.6% 7-Me isomer, m. 102-3° (picrate, m. 203°). 3,6-Me(HO)C $_6$ H $_4$ CHO and PhNH $_2$ gave 2-(6-hydroxy-3-methylphenyl)quinoline, m. 144-5° (picrate, m. 211-12°); p -toluidine gave the 6-Me homolog, m. 143° (picrate, m. 210-11°); m -toluidine gave the 7-Me isomer, m. 174-5° (picrate, m. 221-2°). p -Me $_2$ NC $_6$ H $_4$ CHO and PhNH $_2$ gave 2-(p -dimethylaminophenyl)quinoline, m. 172° (picrate, m. 210-12°); m -toluidine gave the 6-Me homolog, m. 181-0° (picrate, m. 178-9°); p -toluidine gave the 7-Me isomer, m. 175-6° (picrate, decomp. 230°). 3,6-Me(HO)C $_6$ H $_4$ CHO and m -xylylidl $_2$ gave 2-(6-hydroxy-3-methylphenyl)-6,8-dimethylquinoline, m. 140-1° (picrate, m. 209-10°). Chloroplatinates of the products except those from the amino aldehyde are reported and analyzed. The yields of the products were 30-45%, except the derivs. of the amino aldehyde which were 12-31%.
O. M. Kozlov

*454
454
454*

11

KOZLOV, N.S.; PINEGINA, L.Yu.

Catalytic condensation of acetylene with aromatic amines. Part 29:
Reaction mechanism. Zhur.ob.khim. 33 no.4:1079-1081 Ap '63,
(MIRA 1647)

1. Permskiy sel'skokhozyaystvennyy institut.
(Acetylene compounds) (Amines) (Catalysis)

KOZLOV, N.S.; PINEGINA, L.Yu.; SELEZNEVA, Ye.A.

Synthesis of p-ethoxy and p-ethyl derivatives of p-arylamino
ketones. Zhur.ob.khim. 32 no.2:436-439 F '62. (MIRA 15:2)
(Ketones)

KOZLOV, N.S.; PINEGINA, L.Yu.; POPOV, I.F.

Catalytic synthesis of halogen derivatives of β -aryl amino ketones. Zhur.ob.khim. 31 no.7:2234-2236 J1 '61. (MIRA 14:7)

1. Permskiy sel'skokhozyaystvennyy institut.
(Ketone)

RODZAYEVSKIY, V.V.; SMIRNOVA, S.A.; PINEGINA, N.D.

Fluorine in the production of sulfuric acid from metallurgical
gases. TSvet. met. 38 no.5:44-45 My '65.

(MIRA 18:6)

PUEBLO, N.M.

"Local Tradition in the American Southwest," San

Jose, N.M., 1911. L.R., New York, N.Y.

Translation, Introduction, 1911.

PINEGINA, N.I.

Processing meteor photographs of August 13-14, 1952. Bul VAGO
no.22:29-31 '58. (MIRA 11:6)

1.Moskovskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo
obshchestva, meteornyy otdel.
(Meteors--August)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001340910020-1



APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001340910020-1"

FINECINA, N. I.

20530 FINECINA, N. I. Nabyudeniya 11.1.1. i druzhno v 1947 g. "Svyatost" vses 1947.
Astron.-geodez. zh-vn, no. 5, 1947, . . .

SC: LETCHIS LEBENI LITACHY - Vol. 28, Moskva, 1949

PINEGINA. N. I.

USSR (6-10)

Astronomical Photography

Interpreting a photograph of a meteor of August 11-12, 1948. Riul VAGO No. 10, 1951.

Monthly List of Russian Accessions. Library of Congress, May 1952, UNCLASSIFIED.

AKIMOVA, A.M.; PINEGINA, N.L.

Primary suture in antrotomy in breast-fed infants and young
children. Trudy mol. nauch. sotr. MONIKI no.1:65-69 '59
(MIRA 16:11)

1. Iz Otorinolaringologicheskoy kliniki Moskovskogo oblastnogo
nauchno-issledovatel'skogo klinicheskogo instituta imeni
Vladimirskogo.

MARCHENKO, V.I.; PINEGINA, N.L.; MATVEYEVA, N.A.

Virological and microbiological parallels in chronic tonsillitis in children. Vop.virus 7 no.4:78-83 J1-Ag '62. (MIRA 15:8)

1. Moskovskiy oblastnoy nauchno-issledovatel'skiy klinicheskiy institut imeni M.F.Vladimirskogo.
(TONSILS—DISEASES) (ANTISTREPTOLYSINS) (ADENOVIRUS INFECTIONS)

PINEGINA, N.L., kand. med. nauk; REYDMAN, L.B.

A case of bronchial foreign body. Vest. oto-rin. 25 no.4:
91-92 J1-Ag '63. (MIRA 17:1)

1. Iz otorinolaringologicheskoy kliniki (dir. - zasluzhennyy
deyatel' nauki RSFSR prof. I.Ya. Sendul'skiy) Moskovskogo
oblastnogo nauchno-issledovatel'skogo instituta imeni M.F.
Vladimirskogo.

SVETLAKOV, M.I.; PINEGINA, N.L.

Development of sonorous speech following complete laryngectomy
in patients with cancer. Vop. klin. pat. no.2:46-51 '61
(MIRA 16:12)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - zasluzhennyy
deyatel' nauki prof. I.Ya. Sendul'skiy) Moskovskogo oblastnogo
nauchno-issledovatel'skogo klinicheskogo instituta imeni Vla-
dimirskogo.

MARCHENKO, V.I., kand.med.nauk; PINEGINA, N.L., kand.med.nauk;
MATVEYEVA, N.A.; USHAKOVA, S.P.

Relationship between adenoviruses and rheumatism. Terap.arkh.
no.6:72-75 '61. (MIRA 15:1)

1. Iz nauchno-eksperimental'nogo otdela (zav. - doktor med.nauk
O.I. Voronkova), otorinolaringologicheskoy kliniki (zav. - prof.
I.Ya. Sendul'skiy), detskoy kliniki (zav. - prof. M.I. Olevskiy)
Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo
instituta imeni M.F. Vladimirovskogo.

(ADENOVIRUS INFECTIONS) (RHEUMATISM)

PINEGINA, N. L.; MARCHENKO, V. I.; ZAKHAROVA, T. N.

Characteristics of the clinical course of chronic tonsillitis
in connection with adenovirus and streptococcal infections.
Vest. otorin. no.3:27-30 '62. (MIRA 15:6)

(ADENOVIRUS INFECTIONS) (STREPTOCOCCAL INFECTIONS)
(TONSILS--DISEASES)

PINEGINA, N. L.

37672 klinika i lecheniye khronicheskikh gaynoritov v usloviyakh
zapainoy sibiri. trudy tomskogo med. in-ta im. molotova,
t.xv, 1949, s. 233-41

So. Letopis' Zharnal'nykh Statey, Vol. 47, 1949

MARCHENKO, V.I.; PINEGINA, N.L.; MATVEYEVA, N.A.

Incidence of discovery of antibodies to adenoviruses in healthy subjects and those with different diseases based on complement fixation data. Vop.virus. 7 no.3:357-360 My-Je '61. (MIRA 14:7)

1. Nauchno-eksperimental'nyy otdel, pediatricheskaya i otolaringologicheskaya kliniki Moskovskogo oblastnogo klinicheskogo instituta imeni M.F.Vladimirovskogo.

(ADENOVIRUS INFECTIONS)

(COMPLEMENT FIXATION)

PINEGINA, N.L., kand.med.nauk; SHEVRYGIN, B.V., ordinator

Otogenic abscess of the brain and candidamycosis in children.
Vest.otorin. 23 no.2:89-90 P '61. (MIRA 14:4)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - zasluzhennyy
deyatel' nauki RSFSR prof. I.Ya. Sendyl'skiy) Moskovskogo
oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta
imeni M.F. Vladimirskogo.
(MONILIASIS) (EAR) (BRAIN—ABSCESS)

MARCHENKO, V.I., kand.med.nauk; VORONKOVA, O.I., doktor med.nauk;
PINEGINA, N.L., kand.med.nauk; MATVEYEVA, N.A.

Problem of chronic adenovirus infection in chronic tonsillitis.
Vest.otorin. 23 no.1:54-57 Ja-Fe '61. (MIRA 14:2)

1. Iz nauchno-eksperimental'nogo otdela (zav. - doktor med.nauk
O.I. Voronkova), Moskovskoy nauchnoy otorinolaringologicheskoy
kliniki (zav. - prof. I.Ya. Sendul'skiy), pediatricheskoy
kliniki (zav. - prof. M.I. Olevskiy), Oblastnogo nauchno-issledo-
vatel'skogo klinicheskogo instituta imeni M.F. Vladimirovskogo,
Moskva.

(TONSILS--DISEASES) (ADENOVIRUS INFECTIONS)

MARCHENKO, V.I.; PINEGINA, N.L.; MATVEYEVA, N.A.; USHAKOVA, S.P.

Autoimmune reaction against antigens from tonsils in chronic tonsillitis. Zhur.mikrobiol. epid. i immun. 32 no.4:50-53 Ap '61. (MIRA 14:6)

1. Iz Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni Vladimirovskogo.
(TONSILS—DISEASES) (ANTIGENS AND ANTIBODIES)

MARCHENKO, V.I., kand.med.nauk; VORONKOVA, O.I., doktor med.nauk;
PINEGINA, N.L., kand.med.nauk; MATVEYEVA, N.A.

On the role of adenoviruses in chronic tonsillitis. Vest.otorin.
22 no.2:13-19 Mr-Ap '60. (MIRA 13:12)

1. Iz eksperimental'nogo otdela (zav. - doktor med.nauk O.I.
Voronkova), Laringologicheskoy kliniki (zav. - prof.I.Ya.
Sendul'skiy) i detskoy kliniki (zav. - prof.M.I.Olevskiy)
Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo
instituta imeni M.P.Vladimirovskogo.
(TONSILLITIS virol.)

PINEGINA, R.I.; KLIMENKO, V.G.

Variability in the content of proteins and nonprotein nitrogen-containing substances in seeds of some pea species in the process of ripening. Trudy po khim.prirod. soed. no.5:19-26 '62.
(MIRA 16:11)

1. Laboratoriya khimii belka Kishinevskogo gosudarstvennogo universiteta.

PINEGINA, R.I.

Protein and nonprotein nitrogen of the seeds and green ~~bulk~~ of pea varieties. Trudy po khim. prirod. soed. no.3:99-120 '60.

(MIRA 16:2)

1, Kishinveskiy gosudarstvennyy universitet. Laboratoriya khimii belka.

(Peas—Varieties)

(Plants—Chemical analysis)

(Nitrogen)

KLIMENKO, V.B.; PINEGINA, R.I.

Variability of pea seed proteins during ripening. Bikhizlia 29 no.3:
377-385 My-Je '64. (MIRA 18:4)

1. Laboratoriya khimii belka Kishinevskogo universiteta.

PINCHUK, I. I., TOLSTY, V. A., KREMLIN, T. A., and
and KREMLIN, T. A., (1961) (USSR)

"Forms Taken by the Protein and other Nitrogen Compounds in
the Vegetative Parts of Plants."

Report presented at the 11th International Biochemistry Congress,
Moscow, 10-14 Aug 1961.

PINELES, J.

PINKLES, S., dr.; DRAGON, V., dr.

Röntgen therapy through lead grids in bronchopulmonary cancers. Med.
intern., Bucur 13 no.1:137-142 Ja '61.

(LUNG NEOPLASMS radiotherapy)
(CARCINOMA BRONCHOGENIC radiotherapy)

PINELES, S.; DRAGON, V.

Studies on the etio-pathogenetic factors in broncho-pulmonary cancer. Neoplasma 11 no. 1: 63-69 '64.

1. Institut Oncologique de Bucarest, Roumanie.

PINELES, S.

Ways of preventing bronchopulmonary cancer. Vop. onk. 7 no. 7:
105-111 '61. (MIRA 15:2)

1. Iz Onkologicheskogo instituta, Bukharest, Rumynskaya Narodnaya
Respublika.

(RESPIRATORY ORGANS—CANCER)

CARPINISAN, C., prof.; PINELES, S., dr.

The importance and elements of classification by clinical stages
of bronchopulmonary tumors. Med. Intern., Bucur 12 no.10: 600.
(LUNG NEOPLASMS)

PROKHOROVA, A., kand. tekhn. nauk; MAKAROV, V., kand. tekhn. nauk;
GRUVICH, B., kand. tekhn. nauk; PINEROV, A., agro-khimik

Effect of the composition of coal on the quality of dried wheat.
Muk.-elev. prom. 25 no.8:18 Ag '59. (MIRA 13:1)
(Wheat--Drying) (Coal)

PINENZHIK, Anatoliy Mikhaylovich; DUGINA, N.A., tekhn. red.

[Organization of the work of an assembling mechanic] Organizatsiia truda slesaria-sborshchika. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 66 p. (Biblioteka slesaria-sborshchika, no.10) (MIRA 15:3)
(Machine-shop practice)

Action of quinoline derivatives on gametocytes of *Plasmodium praecox* I. I. Kirichevskii and A. I. Pirov
Abstr. Form. Farm. No. 2, 30 (1964) Both plasmodium and placental (6-methoxy-3,4-dimethylaminopropyl) aminoquinoline in doses 1 (0.03) and 1 (5.0) in 12 hrs will cause gametocytes in malaria in birds to lose their ability of sexual cycle in the mosquito organism.
 Leo Nosarevich

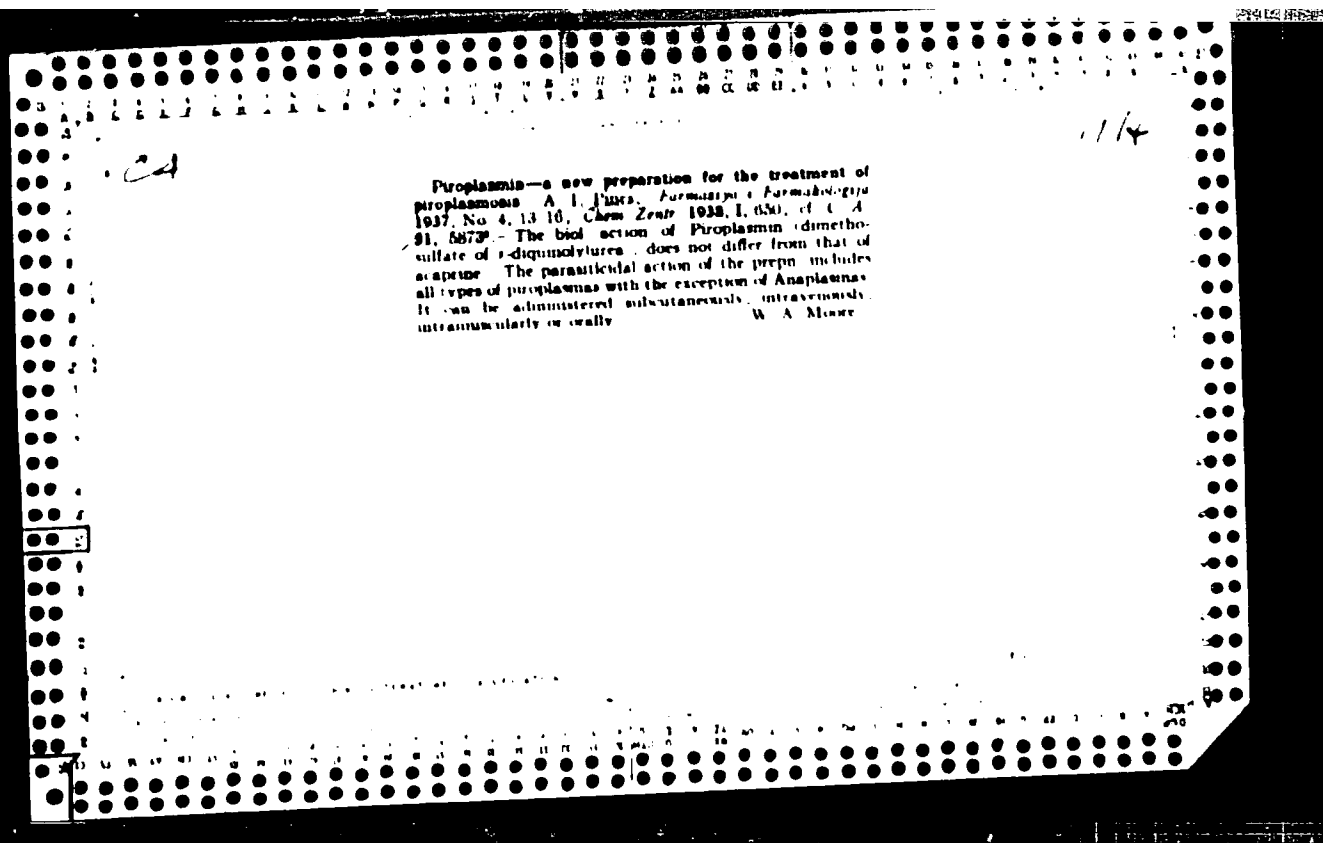
Lee Newsweek

010 114 OTTALINGICAL LITERATURE CLASSIFICATION

1.2m 0.3m 1.5m

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

The chemotherapy of piroplasmosis I. A. I. Pines
and I. A. Abramov *Microbiol. Epidemiol. Im-
munol.* 17, 102-104 (German) 1977
1978. The intermuscular injection of 1 mg/kg body
wt. of Piroplasma I, the bis-dimethyl sulfate of the
equimolar salt, and aspirin II into dogs 5 days before
infection with the piroplasma lengthened the incubation
period and hindered the development of the infection.
Simultaneous injection of I or II in the same dose with the
infusing organism did not lead to infection. S. A. K.



PINES, A. I., KUTUKOVA, K. S., ENLIKOVA, A. P.

Chemotherapy of experimental trypanosomiasis in
prolonged (narcotic) sleep. Zh. mikrobiol., Moskva No.1:
38-39 January 1954. (CML 25:5)

1. Of the Department of Microbiology (Head -- Prof. A. I.
Pines) and the Department of Pharmacology (Head -- Prof.
M. M. Nikolayeva), Moscow Pharmaceutical Institute of the
Ministry of Public Health USSR.

PINES, A.I.; SHLAYKHUROVA, Ye.D.

Some biochemical peculiarities of murine typhus bacteria.
Zhur. mikrobiol. epid. i immu 28 no.2:137 P '57 (MLRA 10:4)

1. Iz Dagestanskogo meditsinskogo instituta i Dagestanskogo
instituta pitatel'nykh sred.
(SALMONELLA TYPHIMURIUM)

PINNS, A.I., prof. (Moskva)

Microbiology of vegetable materia medica. Apt.delo 6 no.3:32-36
My-Je '57. (MIRA 11:1)
(BACTERIOLOGY)

[illegible]

PINES, A. I.

F-2

USSR/Microbiology - Antibiosis and Symbiosis
Antibiotics.

Abs Jour: Ref Zhur - Biol., No 18, 1958, 81444

Author : Pines, A.I.

Inst : -

Title : Microbiology of Medicinal Vegetative Raw
Materials.

Orig Pub: Aptekhn. delo, 1957, 6, No. 3, 32-36

Abstract: The microflora of different samples of medicinal raw material are represented chiefly by bacteria, most frequently sporidiferous, and molds (*Mucor*, *Aspergillus*) and actinomycetes. Specific flora, characteristic of individual species of raw material, were not found. Development of micro organisms on medicinal raw material depends on a number of factors: humidity, temperature,

Card 1/2

S. 121
A 05/AUG 1

Translation from: Referativnyy zhurnal Mashinostroyeniye, 1960, No. 10, p. 111029

AUTHOR Fines, A. V.

TITLE The Technology of Casting in Shell Molds

PERIODICAL V st. Peredovaya tekhn. litern. proiz-va Kiyev-Moscow, Mashinostroyeniye, 1958, pp. 38-40

TEXT: The author reports on the advantages of casting in shell molds in comparison with casting in sand molds, exemplifying the cast iron covers of the stuffing boxes and the clips of the latch of the tractor G-80 (S R). The former part can be used without mechanical processing when producing it by casting in shell molds.

A M G

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

BURTSEV, A.D.; SAGUSHYY, V.V.; LUPANOV, B.P.; BOGACHEV, A.P.; SMIRNOV, G.P.;
ANDRONOVA, Ye.I.; GIZMAYYER, V.K.; PINES, A.V.; SHEVCHUK, R.S.;
WOSOV, Ye.S.; DOROSHETKO, S.P.; KUGEL', D.B.; ZOLOTNIKOV, N.M.;
SHPILENKO, A.M.; VASILYUK, A.P.; SVIRIDOV, I.A.

Using exothermic mixtures for heating the heads of steel castings.
Prom.energ. 15 no.6:14 Je '60. (VIRA 13:7)
(Founding)

PINES 171

[illegible]

The authors of this book are: **Advanced Technology of Casting**
 by **James H. Holloman** and **James H. Holloman**.
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 without permission in writing from McGraw-Hill Book Co.
 Printed in the United States of America.

152 p. 6,000 copies printed.
 (New York: Dover, 1962).
 Dr. V. E. Ozolsky (Dob. 1914), M. V. Zolotarev (Zol. 1914), and E. V. Zolotarev (Zol. 1914) are the authors of the book. The book is written in Russian. It is a monograph on the theory of the structure of the atomic nucleus. It is a very good book for the student of nuclear physics. It is also a good book for the physicist who is interested in the structure of the atomic nucleus. The book is written in a very clear and concise manner. It is a very good book for the student of nuclear physics. It is also a good book for the physicist who is interested in the structure of the atomic nucleus.

REMARKS: This boat is intended for engine - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 31 - 32 - 33 - 34 - 35 - 36 - 37 - 38 - 39 - 40 - 41 - 42 - 43 - 44 - 45 - 46 - 47 - 48 - 49 - 50 - 51 - 52 - 53 - 54 - 55 - 56 - 57 - 58 - 59 - 60 - 61 - 62 - 63 - 64 - 65 - 66 - 67 - 68 - 69 - 70 - 71 - 72 - 73 - 74 - 75 - 76 - 77 - 78 - 79 - 80 - 81 - 82 - 83 - 84 - 85 - 86 - 87 - 88 - 89 - 90 - 91 - 92 - 93 - 94 - 95 - 96 - 97 - 98 - 99 - 100 - 101 - 102 - 103 - 104 - 105 - 106 - 107 - 108 - 109 - 110 - 111 - 112 - 113 - 114 - 115 - 116 - 117 - 118 - 119 - 120 - 121 - 122 - 123 - 124 - 125 - 126 - 127 - 128 - 129 - 130 - 131 - 132 - 133 - 134 - 135 - 136 - 137 - 138 - 139 - 140 - 141 - 142 - 143 - 144 - 145 - 146 - 147 - 148 - 149 - 150 - 151 - 152 - 153 - 154 - 155 - 156 - 157 - 158 - 159 - 160 - 161 - 162 - 163 - 164 - 165 - 166 - 167 - 168 - 169 - 170 - 171 - 172 - 173 - 174 - 175 - 176 - 177 - 178 - 179 - 180 - 181 - 182 - 183 - 184 - 185 - 186 - 187 - 188 - 189 - 190 - 191 - 192 - 193 - 194 - 195 - 196 - 197 - 198 - 199 - 200 - 201 - 202 - 203 - 204 - 205 - 206 - 207 - 208 - 209 - 210 - 211 - 212 - 213 - 214 - 215 - 216 - 217 - 218 - 219 - 220 - 221 - 222 - 223 - 224 - 225 - 226 - 227 - 228 - 229 - 230 - 231 - 232 - 233 - 234 - 235 - 236 - 237 - 238 - 239 - 240 - 241 - 242 - 243 - 244 - 245 - 246 - 247 - 248 - 249 - 250 - 251 - 252 - 253 - 254 - 255 - 256 - 257 - 258 - 259 - 260 - 261 - 262 - 263 - 264 - 265 - 266 - 267 - 268 - 269 - 270 - 271 - 272 - 273 - 274 - 275 - 276 - 277 - 278 - 279 - 280 - 281 - 282 - 283 - 284 - 285 - 286 - 287 - 288 - 289 - 290 - 291 - 292 - 293 - 294 - 295 - 296 - 297 - 298 - 299 - 300 - 301 - 302 - 303 - 304 - 305 - 306 - 307 - 308 - 309 - 310 - 311 - 312 - 313 - 314 - 315 - 316 - 317 - 318 - 319 - 320 - 321 - 322 - 323 - 324 - 325 - 326 - 327 - 328 - 329 - 330 - 331 - 332 - 333 - 334 - 335 - 336 - 337 - 338 - 339 - 340 - 341 - 342 - 343 - 344 - 345 - 346 - 347 - 348 - 349 - 350 - 351 - 352 - 353 - 354 - 355 - 356 - 357 - 358 - 359 - 360 - 361 - 362 - 363 - 364 - 365 - 366 - 367 - 368 - 369 - 370 - 371 - 372 - 373 - 374 - 375 - 376 - 377 - 378 - 379 - 380 - 381 - 382 - 383 - 384 - 385 - 386 - 387 - 388 - 389 - 390 - 391 - 392 - 393 - 394 - 395 - 396 - 397 - 398 - 399 - 400 - 401 - 402 - 403 - 404 - 405 - 406 - 407 - 408 - 409 - 410 - 411 - 412 - 413 - 414 - 415 - 416 - 417 - 418 - 419 - 420 - 421 - 422 - 423 - 424 - 425 - 426 - 427 - 428 - 429 - 430 - 431 - 432 - 433 - 434 - 435 - 436 - 437 - 438 - 439 - 440 - 441 - 442 - 443 - 444 - 445 - 446 - 447 - 448 - 449 - 450 - 451 - 452 - 453 - 454 - 455 - 456 - 457 - 458 - 459 - 460 - 461 - 462 - 463 - 464 - 465 - 466 - 467 - 468 - 469 - 470 - 471 - 472 - 473 - 474 - 475 - 476 - 477 - 478 - 479 - 480 - 481 - 482 - 483 - 484 - 485 - 486 - 487 - 488 - 489 - 490 - 491 - 492 - 493 - 494 - 495 - 496 - 497 - 498 - 499 - 500 - 501 - 502 - 503 - 504 - 505 - 506 - 507 - 508 - 509 - 510 - 511 - 512 - 513 - 514 - 515 - 516 - 517 - 518 - 519 - 520 - 521 - 522 - 523 - 524 - 525 - 526 - 527 - 528 - 529 - 530 - 531 - 532 - 533 - 534 - 535 - 536 - 537 - 538 - 539 - 540 - 541 - 542 - 543 - 544 - 545 - 546 - 547 - 548 - 549 - 550 - 551 - 552 - 553 - 554 - 555 - 556 - 557 - 558 - 559 - 560 - 561 - 562 - 563 - 564 - 565 - 566 - 567 - 568 - 569 - 570 - 571 - 572 - 573 - 574 - 575 - 576 - 577 - 578 - 579 - 580 - 581 - 582 - 583 - 584 - 585 - 586 - 587 - 588 - 589 - 590 - 591 - 592 - 593 - 594 - 595 - 596 - 597 - 598 - 599 - 600 - 601 - 602 - 603 - 604 - 605 - 606 - 607 - 608 - 609 - 610 - 611 - 612 - 613 - 614 - 615 - 616 - 617 - 618 - 619 - 620 - 621 - 622 - 623 - 624 - 625 - 626 - 627 - 628 - 629 - 630 - 631 - 632 - 633 - 634 - 635 - 636 - 637 - 638 - 639 - 640 - 641 - 642 - 643 - 644 - 645 - 646 - 647 - 648 - 649 - 650 - 651 - 652 - 653 - 654 - 655 - 656 - 657 - 658 - 659 - 660 - 661 - 662 - 663 - 664 - 665 - 666 - 667 - 668 - 669 - 670 - 671 - 672 - 673 - 674 - 675 - 676 - 677 - 678 - 679 - 680 - 681 - 682 - 683 - 684 - 685 - 686 - 687 - 688 - 689 - 690 - 691 - 692 - 693 - 694 - 695 - 696 - 697 - 698 - 699 - 700 - 701 - 702 - 703 - 704 - 705 - 706 - 707 - 708 - 709 - 710 - 711 - 712 - 713 - 714 - 715 - 716 - 717 - 718 - 719 - 720 - 721 - 722 - 723 - 724 - 725 - 726 - 727 - 728 - 729 - 730 - 731 - 732 - 733 - 734 - 735 - 736 - 737 - 738 - 739 - 740 - 741 - 742 - 743 - 744 - 745 - 746 - 747 - 748 - 749 - 750 - 751 - 752 - 753 - 754 - 755 - 756 - 757 - 758 - 759 - 760 - 761 - 762 - 763 - 764 - 765 - 766 - 767 - 768 - 769 - 770 - 771 - 772 - 773 - 774 - 775 - 776 - 777 - 778 - 779 - 780 - 781 - 782 - 783 - 784 - 785 - 786 - 787 - 788 - 789 - 790 - 791 - 792 - 793 - 794 - 795 - 796 - 797 - 798 - 799 - 800 - 801 - 802 - 803 - 804 - 805 - 806 - 807 - 808 - 809 - 810 - 811 - 812 - 813 - 814 - 815 - 816 - 817 - 818 - 819 - 820 - 821 - 822 - 823 - 824 - 825 - 826 - 827 - 828 - 829 - 830 - 831 - 832 - 833 - 834 - 835 - 836 - 837 - 838 -

of scientific research laboratories.

Comments: This book is a collection of a number of scientific research findings on the methods of production and marketing of the various types of products manufactured by the various types of industries of the machine-building industry of the country of interest.

of the Academy of Medicine.
His previous investigations
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theoretical and applied
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radio engineering are
being published, the
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100-443888-100

Brewer, P. L., Engineer.

✓ James, A. V., Engineer. Chairman of this-called Civil Eng.

11

9/5/2008

1

GRAUS, Iosif, conf. ing.; FINKSCU, Aurel, ing.

quick method for the determination of the specific area
of road fillers. Rev transport 10 no.1:8-16 Ja '63.

ACCESSION NR: AP4004854

S/0181/63/005/012/3485/3488

AUTHORS: Pines, B. Ya.; Oumen, N. M.

TITLE: X-ray determination of magnetostriction constants of Fe-Co ferrites

SOURCE: Fizika tverdogo tela, v. 5, no. 12, 1963, 3485-3488

TOPIC TAGS: magnetostriction, magnetostriction constant, ferrite, iron cobalt ferrite

ABSTRACT: The authors have determined the concentration dependence of magnetostriction of saturation for Fe-Co ferrites. They have shown that the residual deformation of these ferrites, which have been subjected to thermomagnetic treatment, is equal to the complete magnetostriction deformation. From values of relative change in interplanar distances, determined by x-ray data for polycrystalline samples that have undergone thermomagnetic treatment, the authors have determined the magnetostriction constant throughout the entire interval of CoO concentration. The relation is shown graphically in Fig. 1 on the Enclosure. The value of this constant is found to be in good agreement with data in the literature

Cord 1/3 2

ACCESSION NR: AP4004854

on magnetostriction constants for Fe_3O_4 and $\text{Co}_{0.8}\text{Fe}_{2.2}\text{O}_4$ as determined by measurements on single crystals. Orig. art. has: 3 figures and 1 formula.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Kharkov State University)

SUBMITTED: 01Jul63

DATE ACQ: 03Jan64

ENCL: 01

SUB CODE: PH

NO REF SOV: 001

OTHER: 002

Cord 2/3 2

ACCESSION NR: AT4013975

S/3070/63/000/000/0003/0006

AUTHOR: Pines, B. Ya.; Ivanov, I. G.

TITLE: A vacuum installation for measuring rate of creep and rupture strength of metals and alloys at temperatures up to 1200C

SOURCE: Novyye mashiny i pribory dlya ispytaniya metallov. Sbornik statey. Moscow, Metallurgizdat, 1963, 3-6

TOPIC TAGS: creep rate, rupture strength, creep tester, serial creep tester, high temperature creep, high temperature rupture strength, rupture strength measurement

ABSTRACT: The authors describe equipment they designed and have used since 1959 (see Fig. 1 in the Enclosure) to test five specimens simultaneously. Temperature can be maintained constant within 2-3C over a range up to 1000C and within 3-5C for temperatures above 1000C. Typical results of creep tests on copper or copper alloy specimens are illustrated (see Fig. 2 in the Enclosure). The equipment is intended to measure changes in elongation occurring over a period of time under a constant load. Well defined values can be obtained for the rate of creep. Rupture strength for a given load is also plotted on the resulting diagrams.

Card 1/2

ACCESSION NR: AT4013975

Low accuracy in deformation measurements is the stated shortcoming of the installation. Orig. art. has: 2 graphs.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo
(Khar'kov State University)

SUBMITTED: 00

DATE ACQ: 20Feb64

ENCL: 04

SUB CODE: ML, SD

NO REF SOV: 003

OTHER: 000

Cord

2/82

PINES, B.Ya.; SIRENKO, A.F.

Kinetics of sintering and diffusion creep in solids. *Fiz. met. i metalloved* 20 no.1:84-96 Ян '65.

(MIRA 18:1)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo.

PINES, B.Ya.; KOVALENKO, S.I.

Multiframe high-temperature electron diffraction camera. Prib. i tekhn.
eksp. 10 no.1:192-194 Ja-F '65. (MIRA 18:7)

1. Khar'kovskiy gosudarstvennyy universitet.

PINES, B.Ya.; GUMEN, N.M.

Thermomechanical treatment of sintered ferrite. Fiz. tver. tela 7
no.2:351-354 P '65. (VOIPA 18:8)

1. Khar'kovskiy gosudarstvennyi universitet imeni Gori'kova.

L 4184-66 EWT(m)/EWP(w)/EWP(1)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) JD/HW/JG

ACCESSION NR: AP5016531

UR/0126/65/019/006/0899/0907

548.4.548.0:539

62
61
8

AUTHOR: Pines, B. Ya.; Nguyen Suan Tyan'

TITLE: Deformation and strength of thin films

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 6, 1965, 899-907

TOPIC TAGS: metal film, aluminum, silver, germanium, copper film, nickel, iron, strain, metal stress, ultimate strength, internal stress, elastic deformation, plastic deformation

ABSTRACT: The strength and other mechanical properties⁴ of thin films of aluminum, silver, germanium, copper, nickel, and iron (obtained by evaporation and condensation) ranging in thickness from 100 to 700 Å were studied. In all but the iron films as the thickness decreases, the ultimate strength rises. At the same time, the plastic strain preceding rupture decreases, while the elastic strain increases. Measured values of Young's modulus were 2 to 3 times too high; this may be due, at least in part, to the presence of internal stresses in the films. An electron diffraction study confirmed the formation of high elastic strain in thin films. The

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ACCESSION NR: AP5016531

mechanical properties of thin films are caused by a number of factors, e. g., the presence of compressive stress under the influence of surface tension γ and residual strains, an increase in the operating stress of dislocation sources, and a decrease in the length of dislocation pileups. Orig. art. has: 6 figures, 2 tables, 12 formulas.

ASSOCIATION: Khar'kovskiy gosuniversitet im. A. M. Gor'kogo (Kharkov State University)

SUBMITTED: 27Aug64

ENCL: 00

SUB CODE: MM

NO REF SOV: 007

OTHER: 007

Card 2/2 *ML*

PINES, B. Ya.

"Diffusional creep and sintering of ceramic bodies by movement of lattice imperfections."

Paper submitted for 3rd Joint Meeting, The Netherlands Ceramic Society and British Ceramic Society, Bristol, 5-8 July 1965.

Institut Khimii Silikatov, Akademii Nauk SSSR, Leningrad.

PINKS, B. Ya.; GREBENNIK, I.F.

Electron diffraction study of heterodiffusion in the system Ge-Si.
Kristallografiia 8 no.1:16-20 Ja-F'63 (MIRA 1777)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gork'ogo.

PINES, B.Ya.; GUMEN, N.M.

X-ray diffraction determination of the magnetostriction constants of
iron-cobalt ferrites. Fiz. tver. tela 5 no. 12: 3435-3438 1963.
(MIRA 17:2)

1. Khar'kovskiy gosudarstvennyy universitet.

PIRES, B.Ya.; SUROVTSEV, I.Ya.

Determination of the dispersity and microdislocations of crystal lattices based on data of harmonic analysis of the shape of radio-graph lines. Kristallografiia 8 no.3:489-493 My-Je '63.
(MIRA 16:11)

1. Kharkovskiy gosudarstvennyy universitet imeni Kar'lyava.

PINES, B.Ya.; BADIYAN, Ye.Ye. ; KHIZHKOVYY, V.P.

Kinetics of creep in single crystals of metals and alloys at
high temperatures. Fiz. tver. tela 5 no.10:2859-2870 1968.
(MIRA 10:11)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M. Gork'ogo.